Title: CHEMICAL MECHANICAL POLISHING SYSTEM AND PROCESS

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#### **REMARKS**

Applicant has carefully reviewed and considered the Office Action mailed on November 26, 2003. Claims 1, 14, 24-25, 29-30, 33, 45, 47, 49, 51, 61, 72, 77, 82 and 90 are amended, and claims 11-13 and 22-23 are canceled; as a result, claims 1-10, 14-21 and 24-90 are now pending in this application.

### Withdrawn Claims

Claims 3, 28, 37, 40, 58, 67-68, 76, 81 and 89 have been withdrawn from consideration. Applicant respectfully requests consideration of the withdrawn claims upon the allowance of a generic claim. Applicant believes that at least claims 1, 26, 33, 51, 61, 72, 77 and 82 are generic.

# Amendments to the Specification

Applicant has amended the specification to correct grammar and a numbering error. Applicant respectfully asserts that no new matter has been added. Applicant respectfully requests consideration and approval of these amendments.

#### Amendments to the Claims

Applicant has amended the claim set to correct for grammar (e.g. claim 24) and to clarify that the polishing pad drum is a drum formed by a polishing pad (e.g. claim 1). No new matter has been added.

## §102 Rejection of the Claims

Claims 1, 2, 4-9, 11-14, 16, 18-25, 33, 35, 36, 38, 39, 41-56, 59-61, 63-66, 69-75, 77-80, 82-88 and 90-92 were rejected under 35 USC § 102(b) as being anticipated by Shimizu (U.S. 5,827,115). Applicant respectfully traverses for at least the following reasons.

With respect to amended independent claims 1, 14, 33, 45, 47 and 49, Applicant is unable to find, among other things in the cited portions of Shimizu, a polishing system comprising a polishing pad drum having a cylindrical shape where the polishing pad drum being formed by a rigid polishing pad, as recited along with other elements in the claims. Claims 2, 4-9 and 11-13 depend on independent claim 1, and are believed to be allowable for at least the reasons provided with respect to claim 1. Claims 16 and 18-26 depend on independent claim 14, and are believed to be allowable for at least the reasons provided with respect to claim 14. Claims 35-36, 38-39

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and 41-44 depend on independent claim 33, and are believed to be allowable for at least the reasons provided with respect to claim 33. Claim 46 depends on independent claim 45, and is believed to be patentable at least for the reasons provided with respect to claim 45. Claim 48 depends on independent claim 47, and is believed to be patentable at least for the reasons provided with respect to claim 47. Claim 50 depends on independent claim 49, and is believed to be patentable at least for the reasons provided with respect to claim 49.

With respect to originally-filed independent claim 26, Applicant is unable to find, among other things in the cited portions of Shimizu, a polishing system, comprising a rigid polishing pad formed into a polishing pad drum that has a generally cylindrical shape and a finely tuned laser beam adapted to dress the polishing pad drum, as recited along with other elements in the claim.

With respect to amended independent claims 51, 61, 72, Applicant is unable to find, among other things in the cited portions of Shimizu, a method for planarizing a wafer comprising rotating a rigid polishing pad that forms a polishing pad drum, as recited along with other elements in the claim. Claims 52-56 and 59-60 depend on independent claim 51, and are believed to be patentable at least for the reasons provided with respect to claim 51. Claims 63-66 and 69-71 depend on independent claim 61, and are believed to be patentable at least for the reasons provided with respect to claim 72, and are believed to be patentable at least for the reasons provided with respect to claim 72.

With respect to amended independent claim 77, Applicant is unable to find, among other things in the cited portions of Shimizu, a method for planarizing a wafer, comprising providing a rigid polishing pad that forms a polishing pad drum with an embedded polishing abrasive, as recited along with other elements in the claim. Claims 78-80 depend on independent claim 77, and are believed to be patentable at least for the reasons provided with respect to claim 77.

With respect to amended independent claims 82 and 90, Applicant is unable to find, among other things in the cited portions of Shimizu, a process, comprising dressing a rigid polishing pad that forms a polishing pad drum, as recited along with other elements in the claim. Claims 83-88 depend on independent claim 82, and are believed to be patentable at least for the reasons provided with respect to claim 82. Claims 91-92 depend on independent claim 90, and are believed to be patentable at least for the reasons provided with respect to claim 90.

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# §103 Rejection of the Claims

Claims 10, 15, 26-27, 29-32, 34 and 62 were rejected under 35 USC § 103(a) as being unpatentable over Shimizu in view of Bruxvoort et al. (U.S.5,958,794). Applicant respectfully traverses for at least the following reasons.

Applicant respectfully asserts that the subject matter recited in the claims are not shown or fairly suggested by the cited portions of Shimizu and Bruxvoort, either taken alone or in combination. Claim 10 depends on independent claim 1, and is believed to be patentable at least for the reasons provided with respect to claim 1. Claim 15 depends on independent claim 14, and is believed to be patentable at least for the reasons provided with respect to claim 14. With respect to originally-filed independent claim 26, Applicant is unable to find, among other things in the cited portions of Shimizu and Bruxvoort, either taken alone or in combination, a showing or a fair suggestion of a polishing system, comprising a rigid polishing pad formed into a polishing pad drum that has a generally cylindrical shape and a finely tuned laser beam adapted to dress the polishing pad drum, as recited along with other elements in the claim. Claims 27 and 29-32 depend on independent claim 26, and are believed to be patentable at least for the reasons provided with respect to claim 26. Claim 34 depends on independent claim 33, and is believed to be patentable at least for the reasons provided with respect to claim 61, and is believed to be patentable at least for the reasons provided with respect to claim 61.

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### **CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6960 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743

Respectfully submitted,

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Date 2-18-04

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 18th day of February, 2004.

Peter Rebuffoni

Name

Signature